

# Inventor of Muzak remembered for work with Wright brothers

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**W**ith the Centennial of Military Flight being celebrated at Fort Sam Houston, it may seem like a stretch to think that the man who invented “elevator music” was also an important part of the birth of military aviation.

Like his contemporaries, Orville and Wilbur Wright and Benjamin Foulois, Maj. Gen. George Owen Squier was a man ahead of his time.

Squier was born in Dryden, Mich., on March 21, 1863. After completing only the eighth grade and then working for two years, he entered the United States Military Academy at West Point, N.Y. Graduating seventh in his class in 1887, Squier went on to complete his Ph.D. in physics at Johns Hopkins University in 1893.

Squier transferred to Fort Monroe, Va., where he helped found the “Journal of the United States Artillery” a magazine dedicated to the professional development of U.S. Army field artillerymen, and where he published his research.

His experiments led to the invention of the polarizing photochronograph – an instrument using photography and electromagnetism – that measured the velocity of artillery shells inside the bore of a gun.

By 1897, Squier was using wireless radio waves to remotely fire cannons and detonate mines, proving the military application of radio.

As executive officer to the Chief Signal Officer, U.S. Signal Corps, Squier was instrumental in establishing the Aeronautical Division of the U.S. Signal Corps, the first organizational ancestor of the U.S. Air Force in 1907.

Charged with determining the military potential of the

experiments of the Wright brothers, Squier became the first military airplane passenger in the world when he hopped aboard a Wright-constructed aircraft for a nine-minute flight on Sept. 12, 1908.

He not only wrote the specifications for the first military aircraft, but witnessed acceptance trials of the Army’s first Wright Flyer and while working with the Wright brothers, he was responsible for the purchase of the first airplanes by the U.S. Army in 1909.

Squier always remained interested in radio, and between 1909 and 1910, he applied for four patents in multiplex telephony, where several verbal messages could be transmitted and received over a single wire. This was the basis for the modern communications systems used today.

From May 1916 to February 1917 he was Chief of the Aviation Section, U.S. Signal Corps, the first successor of the Aeronautical Division, before being promoted to major general and appointed Chief Signal

Officer during World War I.

As Chief Signal Officer during World War I, Squier was responsible not only for radio, but also was charged with the entire aviation and communications mission of the United States Army. During the war, Squier succeeded in opening two Army laboratories – one at Fort Monmouth, N.J., for radio and another at Langley Field, Va., for aviation.

Squier can be credited with the Army’s institutionalization of scientific research and development for military purposes.

During his 36-year military career, Squier scored his greatest successes as an inventor, establishing himself as a pioneer in the history of science in the United States. He wrote and edited many books and articles on the subject of radio and electricity.

His invention in 1910 of “multiplexing” allowed telephone wires to carry multiple messages for the first time; the carrier frequency principle involved was later adapted to other types of transmission,

including FM radio. For that achievement, he was elected to the National Academy of Science in 1919.

Shortly before his retirement in 1924, while still in charge of the Signal Corps, Squier developed a way to play a phonograph over electric power lines that served as an early precursor for Muzak.

Squier devised a new application of the transmission technologies that he helped develop – wired radio. He recognized the potential for this technology to be used to deliver music to listeners without the use of radio, which at the time was still in its early stages and required troublesome and expensive equipment.

The rights to Squier’s patents were acquired by the North American Company utility conglomerate – a public utility holding company operating electric lighting and power companies in Cleveland, St. Louis, and many other places – which created a company named Wired Radio Inc., with the intent to use the technique to deliver music subscriptions

to private customers of the utility company’s power service.

Squier remained involved in the project and was reportedly intrigued by the made-up word “Kodak” being used as a trademark. In 1934, he took the “mus” syllable from “music” and added the “ak” from “Kodak” to create his word Muzak, to replace the “Wired Radio” name.

The name and the concept he created would flourish for the remainder of the century, becoming a pervasive presence both in the United States and abroad for generations to come.

Squier died of pneumonia on March 24, 1934, and was buried with full military honors at Arlington National Cemetery in Virginia.

“Throughout the 1930s, as buildings grew taller and elevators became more prominent, Muzak was piped in to soothe the nerves of riders leery of the new contraptions, bringing the term ‘elevator music’ to life,” wrote Arik Johnson in 2004, on Web site “Competitive Intelligence.”

Muzak calmed stranded elevator passengers when a bomber crashed into the Empire State Building in 1945, played in the cabin of Apollo 13 during its ill-fated lunar mission in 1970 and wafted through the deserted halls of the U.S. Embassy after the last Americans left Saigon in 1975, according to David Lindsay, a writer with <http://www.AmericanHeritage.com>.

So next time you hear that inescapable background music hovering around the elevator, or while waiting for someone to pick up the phone, or passing by the Marketing On Hold by Muzak building across from Brooke Army Medical Center on Interstate 35, spare a thought for a military aviation pioneer named George Owen Squier.



Photo by James Hare, courtesy of George Eastman House International Museum of Photography and Film, Rochester, N.Y. Phillip Parmalee (center) checks his watch, while (from left) Sgt. Stephen J. Idzorek, Lt. Benjamin Foulois and Maj. George Squier confer at Leon Springs Military Reservation, March 17, 1911. Foulois and Parmalee were on a mission to deliver a message via airplane from headquarters and return with a reply. Behind the group is the Wright “B” Flyer owned by Robert J. Collier, the son of “Collier’s: The National Weekly” magazine publisher P.F. Collier, used during the mission.